I claim:

1.   A network system comprising:

a plurality of resources, some of which being incompatible with others;

a network interconnecting the resources;

5   an arbiter resident in each of the resources for sending messages via the network and for receiving messages via the network wherein each arbiter independently reviews and processes the messages from other arbiters of other resources so that the resources communicate directly with

10   each other without the need for a master controlling program and without the need for other gateway for controlling and processing the messages as the messages are transmitted between resources.

2.   A network system of claim 1 wherein the network includes a distributed computing environment interconnecting systems using different operating systems and networking systems and wherein the arbiter message comprises ASCII text

5   files for the transmission of instructions between resources.

3.   A system of claim 1 wherein the arbiter message comprises independent task arbiters operating across the network that can dynamically interact with other task arbiters without the need for a central master control

5   system, wherein said independent task arbiters are independent network agents acting under the sole control of the messages being received, and wherein said resources communicate directly with other resources via the independent task arbiters without the intervention of any other process.

4. A system of claim 3 wherein the independent message
arbiters provide asynchronous messaging between resources of
the network so that each generated message is transmitted
through the network independent of any other messages and
the transmitted message will be acted on as it is received
by the destination resource.

5. A system of claim 4 wherein the originating
resource executes other tasks after transmitting the message
thereby creating an intrinsically multi-tasking and multi-
threaded control system such that multiple arbiter messages
can be transmitted through the network independently between
multiple resources.

6. A system of claim 3 wherein the destination arbiter
determines whether any necessary data or programs are
available for executing the controlled process and writes a
control file instructing other network arbiters to transmit
the necessary data or programs to the destination arbiter
when the destination arbiter determines that the necessary
data or programs are not available.

7. A system of claim 1 wherein each arbiter employs
messages which are encrypted after creation at the local
resource so that the network is substantially secure.

8. A system of claim 1 wherein the arbiter messages
include text that provide instructions for interconnecting
resources across a network or interconnecting resources
within a single computer.

9. A system of claim 1 wherein each resource processes
the arbiter messages in its background while performing
other functions in its foreground.

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10. A system of claim 9 wherein adding other computer
program functions is accomplished by executing arbiter
instruction files in the background so that programs that
provide additional functions can be executed by arbiters
that can write the instruction files whereby this execution
can be so tightly bound that the executed programs appear to
be part of the originating program.

11. A system of claim 1 further comprising means for
providing for the remote distribution of data and software
by directly controlling linked computer systems so that
executed programs can do such things as copy files to remote
locations and combine data and/or program files with
execution instructions necessary to process the data files.

12. A system of claim 1 wherein the network handles
time independent instructions and wherein the arbiters are
programmed to execute only at certain times and the programs
themselves can be programmed to execute at specific times or
intervals by the resources whereby network traffic can be
controlled to minimize traffic volume or processor
requirements at particular times.

13. A system of claim 1 wherein the arbiter includes a
message replicating arbiter that uses routing information to
move messages from one scratch space to another and that
determines the routing tree between arbiters.

14. A message system for transmitting messages on a
network between resources interconnected by the network,
said message system comprising:
    an arbiter resident in each of the resources for
sending messages via the network and for receiving messages
via the network, each said arbiter independently reviewing

and processing the messages so that the resources
communicate directly with each other without the need for a
master controlling program and without the need for other
gateway for controlling and processing the messages as the
messages are transmitted between resources.

15.   An inter process peer to peer messaging system for
communicating between a plurality of networked resources,
some of which employ operating systems which are
incompatible with each other, said system comprising:

an arbiter message originator associated with each of
the resources for providing an arbiter message to be sent to
the other resources, the arbiter message instructing one of
the other resources to execute one or more of the following:
remote program execution, data transport, message
communication, status communication, arbiter identification,
data encryption, message encryption, and relocation of
computer resources;

a message arbiter receiver associated with each
resource for receiving the arbiter messages from the other
resources and for responding to the received arbiter message
by executing one or more of the following: retransmitting
the arbiter message to another one of the resources; and
deciphering, interpreting and executing the received arbiter
message wherein the arbiter message originator and the
arbiter message receiver do the actual communication between
their respective resources without the need for a master
controlling program and without the need for other gateway
for controlling and processing the messages as the messages
are transmitted between resources.

16.   An inter process peer to peer messaging process
for communicating between a plurality of networked
resources, some of which employ operating systems which are

incompatible with each other, said process comprising the steps of:

transmitting an arbiter message from one resource to the other resources, the arbiter message instructing one of the other resources to execute one or more of the following: remote program execution, data transport, message communication, status communication, arbiter identification, data encryption and message encryption and relocation of computer resources; and

receiving the arbiter messages from the other resources and for responding to the received arbiter message by executing one or more of the following: retransmitting the arbiter message to another one of the resources; and interpreting and executing the received arbiter message wherein the actual communication between their respective resources is accomplished without the need for a master controlling program and without the need for other gateway for controlling and processing the messages as the messages are transmitted between resources.

17.   The process of claim 16 wherein the resources originate messages of ASCII text files and wherein the resources identify the system identity of messages from the text file.

18.   The process of claim 17 wherein the text files contain a digital signature.